

ViewSonic®

E50/E50B CRT Monitor

- User Guide
- Guide de l'utilisateur
- Guía del usuario
- Guia do usuário



Model No. : VS10623

Contents

Compliance Information	1
Important Safety Instructions	2
Declaration of RoHS Compliance	3
Copyright Information	4
Product Registration	4

Getting Started

Package Contents	5
Precautions	5
Quick Installation	6

Using the Monitor

Setting the Timing Mode	7
Adjusting the Screen Image	8
Main Menu Controls	10

Other Information

Specifications	12
Troubleshooting	13
Customer Support	14
Cleaning the Monitor	15
Limited Warranty	16

Compliance Information

FCC Statement

This device complies with part 15 of FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Warning: You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

For Canada

- This Class B digital apparatus complies with Canadian ICES-003.
- Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

CE Conformity for European Countries



The device complies with the requirements of the EEC directive 89/336/EEC as amended by 92/31/EEC and 93/68/EEC Art.5 with regard to “Electromagnetic compatibility”, and 73/23/EEC as amended by 93/68/EEC Art.13 with regard to “Safety.”


Following information is only for EU-member states:

The mark shown to the right is in compliance with the Waste Electrical and Electronic Equipment Directive 2002/96/EC (WEEE).

The mark indicates the requirement NOT to dispose the equipment as unsorted municipal waste, but use the return and collection systems according to local law.



Important Safety Instructions

1. Read these instructions completely before using the equipment.
2. Keep these instructions in a safe place.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this equipment near water. **Warning:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
6. Clean with a soft, dry cloth. If further cleaning is required, see “Cleaning the Display” in this guide for further instructions.
7. Do not block any ventilation openings. Install the equipment in accordance with the manufacturer’s instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other devices (including amplifiers) that produce heat.
9. Do not attempt to circumvent the safety provisions of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade and the third prong are provided for your safety. If the plug does not fit into your outlet, consult an electrician for replacement of the outlet.
10. Protect the power cord from being tread upon or pinched, particularly at the plug, and the point where it emerges from the equipment. Be sure that the power outlet is located near the equipment so that it is easily accessible.
11. Only use attachments/accessories specified by the manufacturer.
12.  Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this equipment when it will be unused for long periods of time.
14. Refer all servicing to qualified service personnel. Service is required when the unit has been damaged in any way, such as: if the power-supply cord or plug is damaged, if liquid is spilled onto or objects fall into the unit, if the unit is exposed to rain or moisture, or if the unit does not operate normally or has been dropped.

Declaration of RoHS Compliance

This product has been designed and manufactured in compliance with Directive 2002/95/EC of the European Parliament and the Council on restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS Directive) and is deemed to comply with the maximum concentration values issued by the European Technical Adaptation Committee (TAC) as shown below:

Substance	Proposed Maximum Concentration	Actual Concentration
Lead (Pb)	0.1%	< 0.1%
Mercury (Hg)	0.1%	< 0.1%
Cadmium (Cd)	0.01%	< 0.01%
Hexavalent Chromium (Cr ⁶⁺)	0.1%	< 0.1%
Polybrominated biphenyls (PBB)	0.1%	< 0.1%
Polybrominated diphenyl ethers (PBDE)	0.1%	< 0.1%

Certain components of products as stated above are exempted under the Annex of the RoHS Directives as noted below:

Examples of exempted components are:

1. Mercury in compact fluorescent lamps not exceeding 5 mg per lamp and in other lamps not specifically mentioned in the Annex of RoHS Directive.
2. Lead in glass of cathode ray tubes, electronic components, fluorescent tubes, and electronic ceramic parts (e.g. piezoelectronic devices).
3. Lead in high temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead).
4. Lead as an allotting element in steel containing up to 0.35% lead by weight, aluminium containing up to 0.4% lead by weight and as a copper alloy containing up to 4% lead by weight.

Copyright Information

Copyright © ViewSonic® Corporation, 2007. All rights reserved.

Macintosh and Power Macintosh are registered trademarks of Apple Computer, Inc.

Microsoft, Windows, Windows NT, and the Windows logo are registered trademarks of Microsoft Corporation in the United States and other countries.

ViewSonic®, the three birds logo, OnView, ViewMatch, and ViewMeter are registered trademarks of ViewSonic Corporation.

VESA is a registered trademark of the Video Electronics Standards Association. DPMS and DDC are trademarks of VESA.

ENERGY STAR® is a registered trademark of the U.S. Environmental Protection Agency (EPA).

Disclaimer: ViewSonic Corporation shall not be liable for technical or editorial errors or omissions contained herein; nor for incidental or consequential damages resulting from furnishing this material, or the performance or use of this product.

In the interest of continuing product improvement, ViewSonic Corporation reserves the right to change product specifications without notice. Information in this document may change without notice.

No part of this document may be copied, reproduced, or transmitted by any means, for any purpose without prior written permission from ViewSonic Corporation.

Product Registration

To meet your future needs, and to receive any additional product information as it becomes available, please register your product on the Internet at: www.viewsonic.com. The ViewSonic® Wizard CD-ROM also provides an opportunity for you to print the registration form, which you may mail or fax to ViewSonic®.

For Your Records

Product Name:	E50/E50B ViewSonic 15" CRT Monitor
Model Number:	VS10623
Document Number:	E50/E50B-7_UG_ENG Rev. 1B 02-08-07
Serial Number:	_____
Purchase Date:	_____

Product disposal at end of product life

The lamp in this product contains mercury. Please dispose of in accordance with local, state or federal laws.

ViewSonic is concerned about the preservation of our environment. Please dispose of this product properly at the end of its useful life.

Getting Started

Congratulations on your purchase of a ViewSonic® color monitor.

Important! Save the original box and all packing material for future shipping needs.

Note : The word “Windows” in this user guide refers to the following Microsoft operating systems: Windows 95, Windows NT, Windows 98, Windows 2000, Windows ME (Millennium), and Windows XP.

Package Contents

Your package includes:

- Color monitor
- DB-15 video cable
- Power cord
- ViewSonic® CD-ROM Wizard
- Quick Start Guide

Note : The CD includes the User Guide PDF files and INF/ICM display optimization files. The INF file ensures compatibility with Windows operating systems, and the ICM file (Image Color Matching) ensures accurate on-screen colors. ViewSonic® recommends that you install both files.

Precautions

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- | | |
|---|---|
| <ul style="list-style-type: none">• For best viewing conditions sit at least 18” from the monitor.• Avoid touching the screen with your fingers. Oils from the skin are difficult to remove.• Never remove the rear cover. The monitor contains high voltage parts. You may suffer serious injury if you touch these parts.• Avoid exposing the monitor to direct sunlight or another heat source, including an open flame. The monitor should be facing away from direct sunlight to reduce glare.• Always handle your monitor with care when moving it. | <ul style="list-style-type: none">• Place your monitor in a well ventilated area. Do not place anything on the monitor that prevents adequate dissipation of heat.• Ensure the area around the monitor is clean and free of moisture.• Keep the monitor away from magnets, motors, transformers, speakers, and televisions.• Do not place heavy objects on the monitor, video cable, or power cord.• If smoke, on abnormal noise, or a strange odor is present, immediately switch the monitor off and call your dealer or ViewSonic®. It is dangerous to continue using the monitor. |
|---|---|
-

Quick Installation

1. Connect power cord

Connect the power cord to a properly grounded AC outlet.

2. Connect video cable

- Make sure both the monitor and computer are turned OFF.
- Connect the video cable to the computer.

Macintosh® users: Models older than G3 require a Macintosh adapter. Attach the adapter to the computer and plug the video cable into the adapter.

To order a ViewSonic® Macintosh adapter, contact ViewSonic.

See “Customer Support” on page 14.

3. Turn ON monitor and computer

Turn ON the monitor, then turn ON the computer. This sequence (monitor before computer) is very important.

Note : At this point Windows users may receive a message asking them to install the INF file.

4. Install Display Optimization files (INF and ICM files)

Insert the ViewSonic® Wizard CD-ROM into your computer's CD-ROM drive.

Note : If your computer does not have a

CD-ROM drive, see “Customer Support” on page 14.

Wait for the CD-ROM to auto-start.

Note : If the CD-ROM does not auto-start:

double-click on the CD-ROM icon in Windows Explorer, and then double-click on **viewsonic.exe**.

Follow the on-screen instructions.

5. Windows users: Set the Timing Mode (resolution and refresh rate)

Example: 800 x 600 @ 85Hz.

For instructions on changing the resolution and refresh rate, see the graphic card's user guide.

Installation is complete. Enjoy your new ViewSonic® color monitor.

To be best prepared for any future customer service needs: print this user guide and write the serial number in “For Your Records” on page 4. (See back of monitor.)

To register your product go online to **www.viewsonic.com**.

The ViewSonic® Wizard CD-ROM also provides an opportunity for you to print the registration form which you may mail or fax to ViewSonic®.



Using the Monitor

Setting the Timing Mode

Setting the timing mode is important for maximizing the quality of the screen image and minimizing eye strain. The **timing mode** consists of the **resolution** (example 800 x 600) and **refresh rate** (or vertical frequency; example 85 Hz). After setting the timing mode, use the OSD (On Screen Display) controls to adjust the screen image.

For the best picture quality set your monitor timing mode to:

VESA 800 x 600 @ 85 Hz.

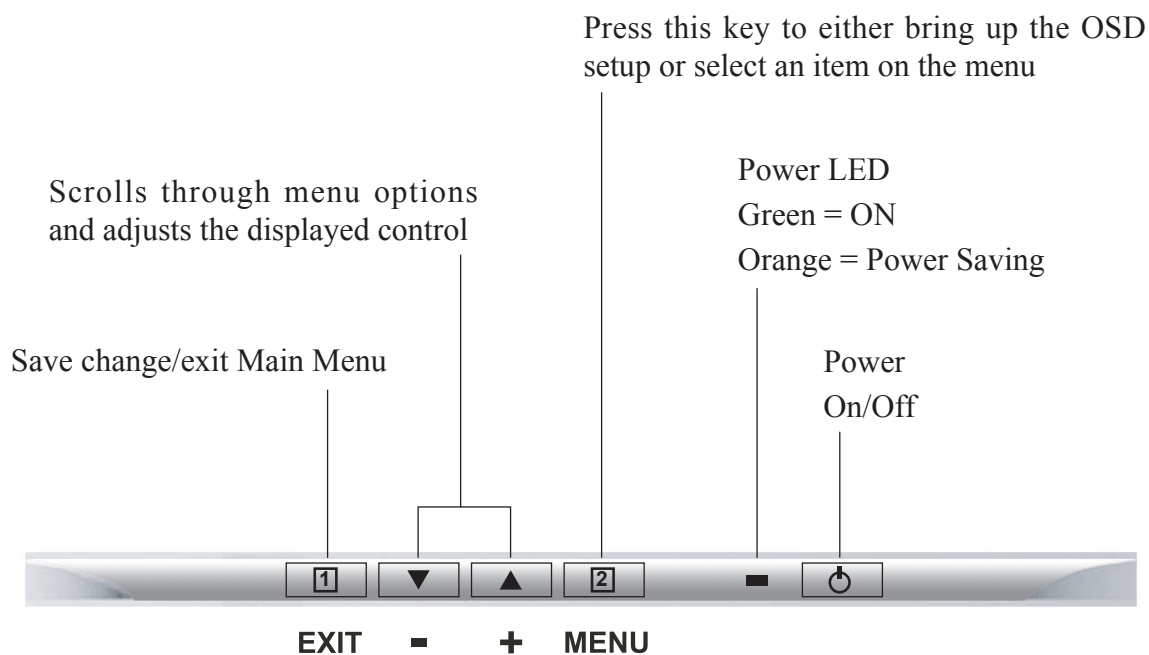
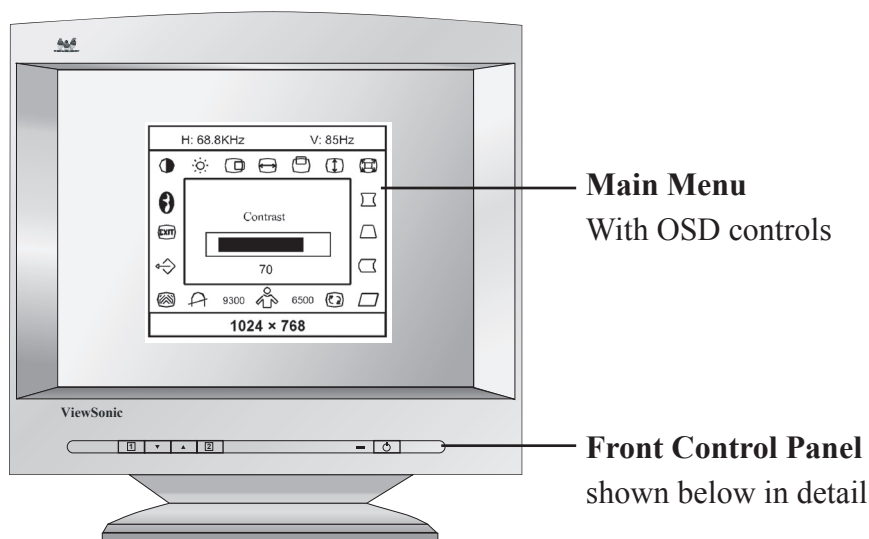
To set the Timing Mode:

- 1. Set the resolution:** Right-click on the Windows desktop > Properties > Settings > set the resolution.
- 2. Set the refresh rate:** See your graphic card's user guide for instructions.

Note : The refresh rate should already be set if you have done the CD installation (or refer to your graphics card documentation).

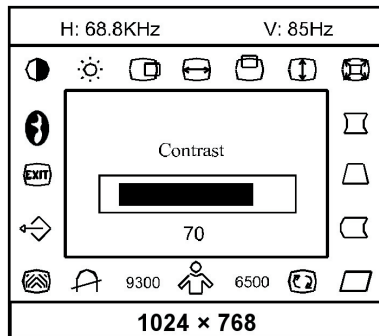
Adjusting the Screen Image

Use the buttons on the front control panel to display and adjust the OSD controls. The OSD controls are explained at the top of the next page and are defined in “Main Menu Controls” on page 10.



Do the following to adjust the screen image:














1. To display the Main Menu, press button “MENU”.








2. To select a control you want to adjust, press the arrow buttons on the front control panel of your monitor and scroll through the choices. When the control you want is highlighted, press button “MENU”.
3. To adjust the selected control, such as CONTRAST in the sample above, press the arrow buttons.
4. To save the control setting and Exit the menu press button “EXIT” twice.

Main Menu Controls

Adjust the menu items shown below by using the up and down buttons.

	CONTRAST	Adjust the picture contrast.
	BRIGHTNESS	Adjust the picture brightness.
	H- CENTER	Adjust the horizontal position of the picture.
	H- SIZE	Adjust the picture's horizontal size.
	V- CENTER	Adjust the vertical position of the picture.
	V- SIZE	Adjust the picture's vertical size.
	ZOOM	Adjust the picture's horizontal and vertical size simultaneously.
	PINCUSHION	Adjust the pincushion and barrel.
	TRAPEZOID	Adjust the picture's trapezoid distortion.
	PIN-BALANCE	Adjust to compensate the pincushion unbalance.
	PARALLELO-GRAM	Adjust the picture to be a rectangle.
	ROTATION	Adjust the picture tilt to horizontal position.
6500°K 9300°K	COLOR TEMPERATURE	The color temperature for 6500°K is $x=0.313$, $y=0.329$ and 9300°K is $x=0.283$, $y=0.297$. It presents two different color sets on the screen. You can select 9300°K or 6500°K by pressing the Shuttle Knob.
	USER COLOR (Red / Blue)	If the 9300°K normal white or 6500°K warmer white do not satisfy your desire, properly adjust R . B GAIN controls to obtain your optimum whiteness level.

	DEGAUSS	If color impurity occurs when moving or swiveling the monitor, press the Shuttle Knob and degauss to fix the picture condition.
	MOIRE REDUCE	Moire is the result of interference between the phosphor layout and the video signal. In some cases, you may find the moire very noticeable. Press the Shuttle Knob to enter in the moire reduce setting. Please adjust the level to the optimum condition. Note: Too high of a setting will cause the picture to shake.
	RECALL	Press RECALL to restore the monitor to factory settings.
	EXIT	Close OSD window.
	SELECT LANGUAGE	Select the language as you like.

Other Information

Specifications

CRT	Type	15" (13.8" viewable diagonal area). 90° deflection, 29.1 mm Neck
	Dot Pitch	0.24 mm horizontal, 0.14 mm vertical, and 0.28 mm diagonal dot pitch
	Phosphor Glass surface	RGB, P 22 medium short persistence TM~57 %, anti-glare, anti-reflection and anti-statistic
Input Signal	Video	RGB Analog (0.7/1.0 Vp-p, 75 Ohms)
	Sync	f _H :30-54 kHz, f _V :50-120 Hz Separate Sync., Composite Sync.
Compatibility	PC	VGA up to 1024 x 768
	Macintosh ¹	Power Macintosh compatible from 640 x 480 to 832 x 624 (may require Macintosh cable adapter)
Resolution	Recommended and supported	640 x 480 @ 60, 85 Hz
		720 x 400 @ 70 Hz
		800 x 600 @ 60, 85 Hz
		1024 x 768 @ 60 Hz
Power	Voltage	AC 100-240 V
		50/60 Hz
Display Area	Default	270 mm(H) x 202 mm(V)
	Full scan	285 mm(H) x 214 mm(V)
Operating Conditions	Temperature	32° F to 104° F (0° C to 40° C)
	Humidity	5% to 95% (non-condensing)
	Altitude	To 10,000 feet
Storage Conditions	Temperature	-40° F to 140° F (-40° C to 60° C)
	Humidity	5% to 95% (non-condensing)
	Altitude	To 50,000 feet
Dimensions	Physical (monitor)	360 mm (W) x 362 mm (H) x 384 mm (D)
		14.2" (W) x 14.3" (H) x 15.1" (D)
Weight	Net	11.2 kg / 24.6 lb (monitor only)
Regulations		MPR II, UL/cUL, FCC-B, ICES-B, DHHS, TUV-S
Power Consumption Modes	On	< 70 W typical (Green LED)
	Sleep	< 8 W (Orange LED)
	Off	< 2 W

¹. Macintosh models prior to G3 require a Macintosh adapter. To order a ViewSonic® Macintosh adapter, contact Customer Support. You will need to provide the product serial number.

Note : This product was designed for operation in the magnetic fields of the hemisphere where it was purchased.

Troubleshooting

No power

- Make sure power button (or switch) is ON.
- Make sure A/C power cord is securely connected to the back of the monitor and to a power outlet.
- Plug another electrical device (like a radio) into the power outlet to verify that the outlet is supplying proper voltage.

Power is ON but no screen image

- Make sure the video cable supplied with the monitor is tightly secured to the video output port on the back of the computer. If the other end of the video cable is not attached permanently to the monitor, tightly secure it to the monitor.
- Adjust brightness and contrast.
- Verify whether an adapter is required for proper signal continuity between graphics card and monitor.

Flickering

- Not enough power supplied. Connect the monitor to a different outlet. If using a surge protector, reduce the number of devices plugged in.
- Check the ViewMeter from the main menu to verify the refresh rate (vertical frequency) is 75 Hz or higher. See “Specifications” on page 12.
- Remove any devices from the area around the monitor that emit magnetic fields such as radios, surge protectors, unshielded speakers, fluorescent lights, AC power converters, desk fans, etc.
- Make sure the graphics card in your computer can use non-interlaced mode at the desired frequencies. To enable your graphics card to support higher refresh rates, try selecting fewer colors or running lower resolutions.

Wrong or abnormal colors

- If any colors (red, green, or blue) are missing, check the video cable to make sure it is securely connected. Loose or broken pins in the cable connector could cause an improper connection.
- Connect the monitor to another computer.
- Select Degauss from the Main Menu. Do this only once.
- If you have an older graphics card, contact ViewSonic® Customer Support.

Entire screen image rolls vertically

- Make sure video input signals are within the monitor’s specified frequency range.
- Try the monitor with another power source, graphics card, or computer system.
- Connect the video cable securely.

Control buttons do not work

- Press only one button at a time.

Customer Support

For technical support or product service, see the table below or contact your reseller.

Note : You will need the product serial number.

Country/ Region	Web Site	T=Telephone F=Fax	E-mail
United States	www.viewsonic.com	T= 800 688 6688 F= 909 468 1202	service.us@viewsonic.com
Canada	www.viewsonic.com	T= 866 463 4775 F= 909 468 5814	service.ca@viewsonic.com
Latin America (Mexico/ Chile)	www.viewsonic.com/la/	T= 866 323 8056 F= 909 444 5655	soporte@viewsonic.com
United Kingdom	www.viewsoniceurope.com/uk/	www.viewsoniceurope.com/uk/ Support/Calldesk.htm	
Europe/Middle East/Baltic countries/North Africa	www.viewsoniceurope.com	Contact your reseller	
Australia/New Zealand	www.viewsonic.com.au	AUS= 1800 880 818 NZ= 0800 008 822	service@au.viewsonic.com
Singapore/Malaysia/ Thailand	www.ap.viewsonic.com	T= 65 64616044	service@sg.viewsonic.com
South Africa/ Other countries	www.ap.viewsonic.com	T= 886 2 2246 3456 F= 886 2 2249 1751	service@sd.viewsonic.com
India	www.in.viewsonic.com	T= 1800 11 9999	service@in.viewsonic.com
Hong Kong	www.hk.viewsonic.com	T= 852 3102 2900	service@hk.viewsonic.com
Macau	www.hk.viewsonic.com	T= 853 700 303	service@hk.viewsonic.com
Korean	www.kr.viewsonic.com	T= 080 333 2131	service@kr.viewsonic.com

Cleaning the Monitor

- Make sure the monitor is turned off.
- Never spray or pour any liquid directly onto the screen or case.

To clean the screen :

1. Wipe the screen with a clean, soft, lint-free cloth. This removes dust and other particles.
2. If further cleaning is required not clean, apply a small amount of **non-ammonia, non-alcohol** based glass cleaner onto a clean, soft, lint-free cloth, and wipe the screen.

To clean the case :

1. Use a soft, dry cloth.
2. If further cleaning is required, apply a small amount of a non-ammonia, non-alcohol based, mild non-abrasive detergent onto a clean, soft, lint-free cloth, then wipe the surface.

Disclaimer :

ViewSonic® does not recommend the use of any ammonia or alcohol-based cleaners on the monitor screen or case. Some chemical cleaners have been reported to damage the screen and/or case of the monitor.

ViewSonic® will not be liable for damage resulting from use of any ammonia or alcohol-based cleaners.

Limited Warranty

VIEWSONIC® CRT MONITOR

What the warranty covers:

ViewSonic warrants its products to be free from defects in material and workmanship, under normal use, during the warranty period. If a product proves to be defective in material or workmanship during the warranty period, ViewSonic will, at its sole option, repair or replace the product with a like product. Replacement product or parts may include remanufactured or refurbished parts or components.

How long the warranty is effective:

ViewSonic CRT Monitors are warranted for 3 years for all parts excluding the display tube and 3 years for labor from the date of the first customer purchase.

Who the warranty protects:

This warranty is valid only for the first consumer purchaser.

What the warranty does not cover:

1. Any product on which the serial number has been defaced, modified or removed.
2. Damage, deterioration or malfunction resulting from:
 - a. Accident, misuse, neglect, fire, water, lightning, or other acts of nature, unauthorized product modification, or failure to follow instructions supplied with the product.
 - b. Repair or attempted repair by anyone not authorized by ViewSonic.
 - c. Any damage of the product due to shipment.
 - d. Removal or installation of the product.
 - e. Causes external to the product, such as electric power fluctuations or failure.
 - f. Use of supplies or parts not meeting ViewSonic's specifications.
 - g. Normal wear and tear.
 - h. Any other cause which does not relate to a product defect.
3. Any product exhibiting a condition commonly known as "image burn-in" which results when a static image is displayed on the product for an extended period of time.
4. Removal, installation, transportation, insurance, and set-up service charges.

How to get service:

1. For information about receiving service under warranty, contact ViewSonic Customer Support (please refer to Customer Support page). You will need to provide your product's serial number.
2. To obtain warranted service, you will be required to provide (a) the original dated sales slip, (b) your name, (c) your address, (d) a description of the problem, and (e) the serial number of the product.
3. Take or ship the product freight prepaid in the original container to an authorized ViewSonic service center or ViewSonic.
4. For additional information or the name of the nearest ViewSonic service center, contact ViewSonic.

Limitation of implied warranties:

There are no warranties, express or implied, which extend beyond the description contained herein including the implied warranty of merchantability and fitness for a particular purpose.

Exclusion of damages:

ViewSonic's liability is limited to the cost of repair or replacement of the product. ViewSonic shall not be liable for:

1. Damage to other property caused by any defects in the product, damages based upon inconvenience, loss of use of the product, loss of time, loss of profits, loss of business opportunity, loss of goodwill, interference with business relationships, or other commercial loss, even if advised of the possibility of such damages.
2. Any other damages, whether incidental, consequential or otherwise.
3. Any claim against the customer by any other party.

Effect of state law:

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow limitations on implied warranties and/or do not allow the exclusion of incidental or consequential damages, so the above limitations and exclusions may not apply to you.

Sales outside the U.S.A. and Canada:

For warranty information and service on ViewSonic products sold outside of the U.S.A. and Canada, contact ViewSonic or your local ViewSonic dealer.

The warranty period for this product in mainland China (Hong Kong, Macao and Taiwan Excluded) is subject to the terms and conditions of the Maintenance Guarantee Card.

